

**Chapter**

# **2**

LIVABLE COMMUNITIES HANDBOOK

Land Use and Design Strategies for the South Bay Cities

## Strategies for Arterial Commercial Strips

# **STRATEGIES FOR ARTERIAL COMMERCIAL STRIPS**

## 2.1 INTRODUCTION

Arterial commercial strips dominate the experience of South Bay travelers. The subregion is crisscrossed by a large number of arterial streets. Relatively few freeway connections mean that these streets are the primary means of travel in the area. While arterials are the “main streets” of many South Bay communities, most of them contribute little to making the subregion livable.

### 2.1.1 Definition

For the purposes of this handbook, arterial commercial strips are defined as having the following characteristics:

- Streets with a minimum of four traffic lanes that play a major mobility role within the community and subregion;
- Primarily commercial zoning;
- Older arterial strips include commercial fronting the street with residential zones immediately adjacent to the rear, storefronts with little or no setback and on-street parking in some areas;
- Newer arterial strips include setback shopping centers or mini-malls with off-street parking lots fronting the street;
- Isolated non-retail commercial spaces such as multi-story offices with off-street parking;
- Some multi-family housing, mostly two to three stories;
- Regional and sometimes local bus transit service, with peak-period headways of 20 minutes or less.

Examples of this type of urban form can be found in nearly all South Bay cities, including all or part of the following arterials:

#### North-South Streets

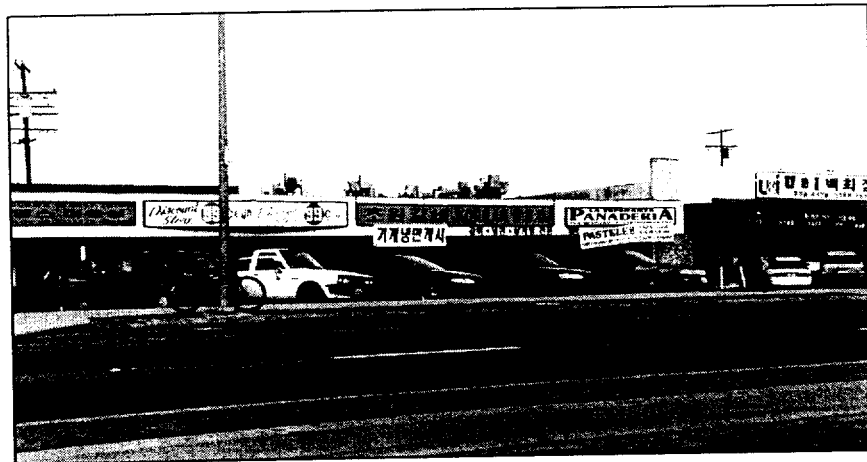
Sepulveda Boulevard/Pacific Coast Highway (PCH)  
 Aviation Boulevard  
 Hawthorne Boulevard  
 Crenshaw Boulevard  
 Western Avenue  
 Main Street (Carson)  
 Avalon Boulevard

## East-West Streets

Manchester Boulevard  
Century Boulevard  
El Segundo Boulevard  
Rosecrans Ave  
Artesia Boulevard  
Torrance Boulevard  
Carson Street  
Lomita Boulevard

The livable communities survey of South Bay cities indicated that many of these corridors have already been identified as having redevelopment potential.

Arterial commercial strips present a number of urban design challenges. Architecture and design contributes to a streetscape that is visually unattractive. Low-density commercial land uses lack a central focus. Establishments along some strips are struggling to stay in business. Poorly designed streets create safety problems for pedestrian and bicycles. Real and perceived barriers discourage travel by alternative modes. A lack of appropriate public spaces deprives the community of venues to gather and interact.



Strip mall, Western Avenue

### 2.1.2 History

The South Bay's arterial commercial strips have gone through a number of evolutions. Earlier this century, streetcars ran on some of these arterials. Small commercial development often lined the streets before the surrounding residential areas were developed. Early commercial buildings usually abutted the sidewalk, and were constructed on relatively small parcels with single-family residential immediately to the rear.

Bus lines replaced streetcars by the late 1950's. On-street parking was usually available at the curb or sometimes in a median. Smaller parcels were assembled to develop larger strip-mall commercial centers, with off-street parking lots fronting the street. In many South Bay cities, the bulk of the housing stock was built in the 1950's and 60's.

During the 1970's, large retail stores and shopping centers were built along arterial streets. Many arterials were widened, with turn pockets added at major intersections. The 1980's development boom intensified land uses in some areas.

Today these arterial commercial streets offer such an eclectic mix of architecture, urban form and land use that they can be difficult to describe. On many of the streets, street-fronting small commercial buildings can still be found not far from contemporary large format retail. Some lots stand vacant. Commercial uses include regional malls, big-box retail, banks, grocery stores, a myriad of quality and fast-food restaurants, auto dealers, gas stations, and small strip centers with establishments such as hair dressers, pet stores, furniture stores and repair shops. Some streets have public uses such as city offices, schools or hospitals. Mixed in are occasional residential areas, including 2- and 3-story apartments and single-family homes.

## **2.2 LIVABLE COMMUNITIES OBJECTIVES**

Transforming these streets into more livable communities will take many years. The public and private decisions that created the existing conditions have taken place over the past 30 to 40 years – decisions such as the complete segregation of land uses, low priority for non-automobile travel, unattractive architecture, and lack of investment in public spaces. The urban form is surprisingly enduring, and changing it will not happen overnight.

### **2.2.1 Short Term**

Some change can happen quickly and it is important to show physical progress. It must be recognized, however, that fundamental change in an area can take years. In the short-term (5 to 10 years), cities should lay the foundation for a future vision of more livable streets. The steps should include:

- Invest in the public infrastructure of livable communities including pedestrian friendly elements such as crosswalks, street trees and street furniture, transit centers and bicycle facilities.
- Protect the existing urban fabric in areas that have a high potential to become more pedestrian friendly, such as blocks with older building stock, street-fronting commercial, relatively narrow streets, or shade trees.
- Modify and enforce zoning requirements to require and/or incentivize livable community land use and building design elements. All new projects

should contribute to the livable community vision.

- Encourage the development of mixed use projects and multifamily housing.

Some funding may be available for public improvements that can be used to enhance the attractiveness of livable community corridors and improve pedestrian and bicycle safety. Much of the process, however, depends on market forces beyond the control of local governments.

### **2.2.2 Long Term**

The future vision for this urban form is an attractive, vital and accessible commercial and residential street. The vision includes:

- Nodes of activity located periodically along the street at or near major intersections featuring higher intensity commercial development with a range of retail, entertainment, restaurants, services, offices and public uses.
- The nodes offer attractive and convenient pedestrian access between establishments, across intersections, and into surrounding residential areas.
- Shoppers, diners and office workers enjoy outdoor public spaces during the day and evening.
- The majority of patrons still arrive by car, but bus transit and bicycling are an attractive and convenient options.
- Travelers in the corridor find a visually attractive streetscape with shade trees, landscaping and a more consistent street wall without large setbacks.
- The street still carries a lot of vehicle traffic, but drivers sense that they share the space with others. Pedestrians and bicycles feel safer traveling along the street and across it.
- Away from activity nodes, housing and offices have replaced non-viable commercial uses, contributing to the attractiveness and vitality of the corridor.

## **2.3 LIVABLE COMMUNITIES STRATEGIES**

There are a variety of land use and urban design strategies to make arterial commercial strips more livable places. These strategies focus on eight broad elements: land use, site design, commercial building and multifamily building design, sidewalks, parking, streets, and alternative transportation. Each of these elements is discussed below.

In the survey of South Bay cities, planners were asked to identify the impediments to livable communities. The most frequently mentioned impediment was community

resistance, including fear of change. Mixed use projects were identified as bringing fears of conflicts between residents and businesses. The difficulty of incorporating livable community elements in built-out areas was felt to be extremely difficult.

Figure 2.1 presents a composite plan view showing typical arterial commercial strip existing conditions. The plan illustrates some of the problems that can be addressed by livable communities strategies in this urban form type. Figure 2.2 shows the same plan with these strategies in place.

Arterial commercial streets obviously vary quite a bit across the South Bay. Some, like Hawthorne Boulevard and the Pacific Coast Highway, have six lanes or more and carry roughly 60,000 to 80,000 vehicles per day. These roads serve as a primary route through the subregion and will continue to do so for many years. Other arterials have only four lanes and carry much lower traffic volumes. Some of the strategies described in this document are more appropriate for lower volumes streets, while others may be more appropriate for the high volume streets. However, *all* streets can be improved by applying the principles of livable communities. Cities should not write off any arterial street as the sole domain of the automobile and abandon efforts to improve the pedestrian environment.

### **2.3.1 Land Use**

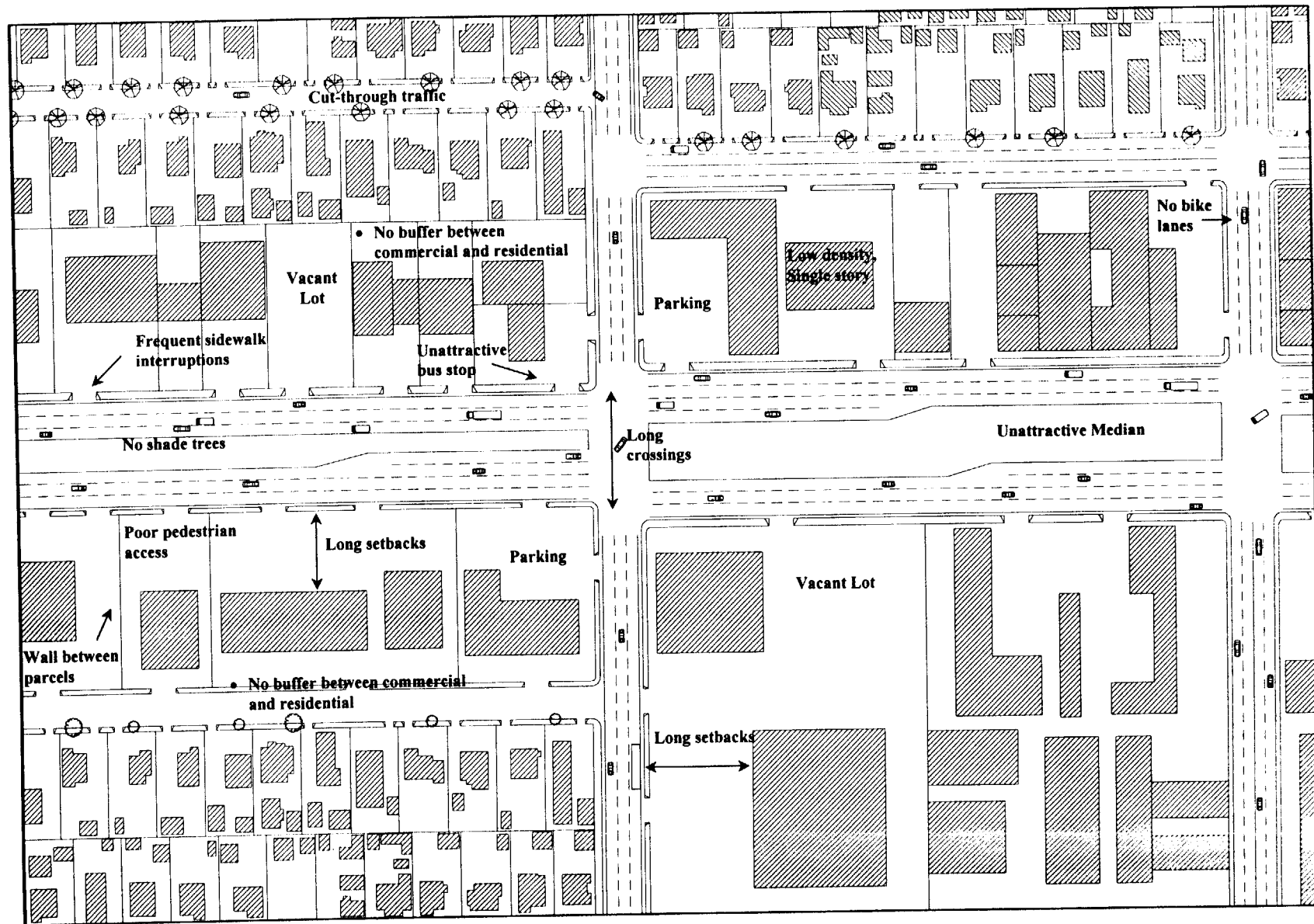
In today's typical South Bay arterial commercial strips, linear development stretches along the entire street without any focus or activity center. Commercial uses are poorly integrated with surrounding residential areas.

Nearly all commercial development is one story, with a low floor-area ratio (FAR). Most patrons must drive along the street from one use to another, rather than accomplishing several activities in one central area. Auto-oriented uses are frequent and interspersed, including gas stations, auto repair shops and drive-through restaurants and banks. These uses are often large generators of vehicle trips, not pedestrian-friendly and break up any cohesive architectural form.

### **Focus New Development**

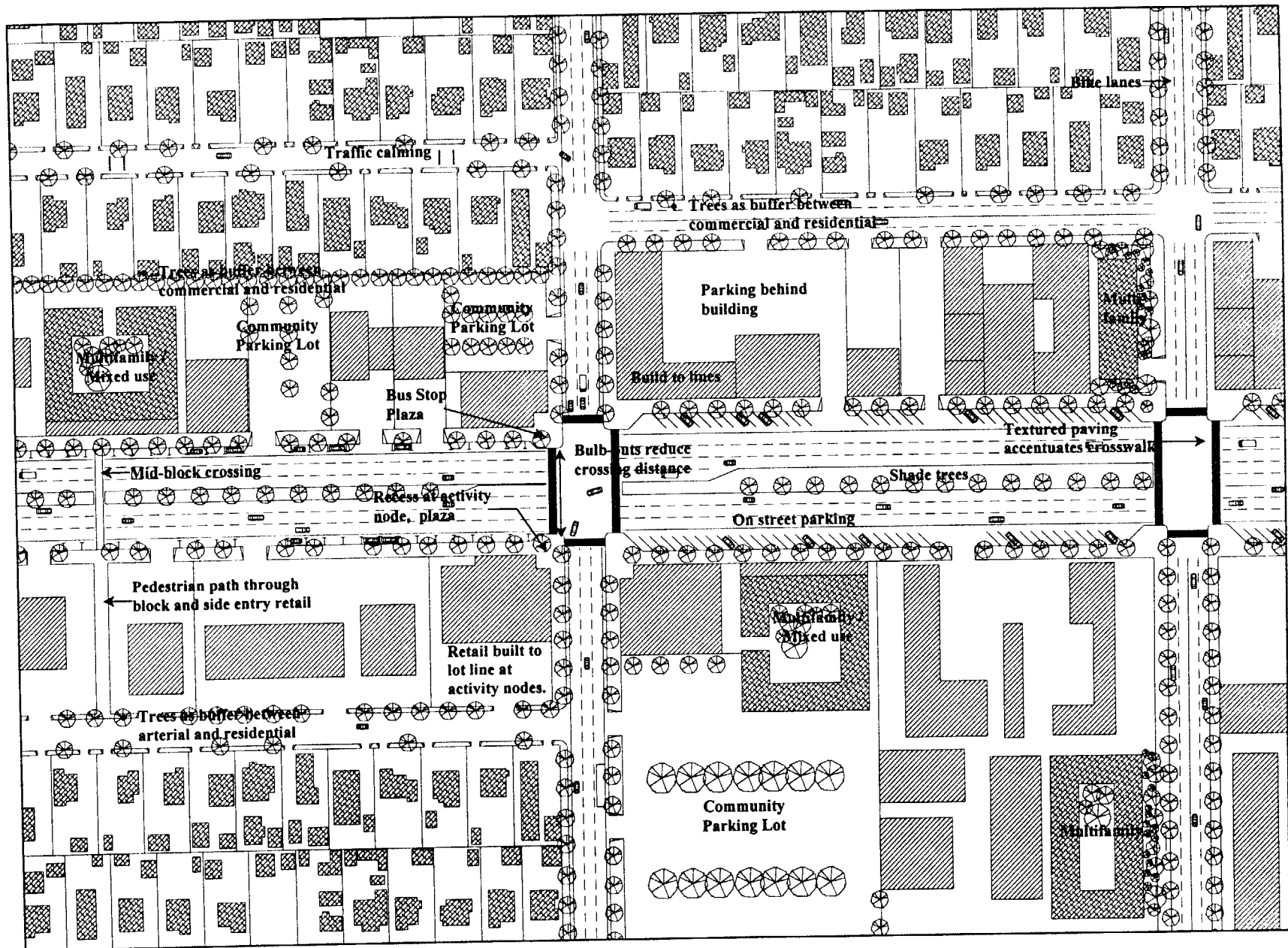
South Bay cities should carefully identify nodes at which to focus higher intensity development. For commercial and mixed use development, these would likely be intersections or areas with older, higher density building stock. Auto-oriented and other lower intensity uses should be discouraged at activity nodes, including drive-up banks, drive-through restaurants, car washes, repair and sales, storage facilities, gas stations and large discount retail stores.

**Figure 2.1 Existing Conditions, Arterial Commercial Strip**

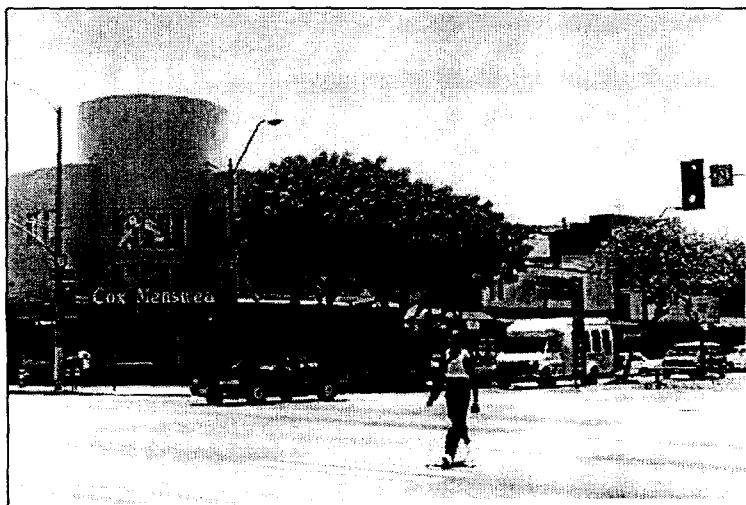




**Figure 2.2 Future Conditions, Arterial Commercial Strip**



Other portions of the street away from the activity node should remain at lower densities. Uses such as multi-family residential, office or professional services should be encouraged on the edge of the activity nodes. In some cases, these uses can replace the non-viable commercial strip malls currently in place.



Market and Manchester Streets, Inglewood

In an interview with John Given of the CIM Group, a developer of "Main Street" retail and mixed use projects, he cited the importance of a compact, focused location for redevelopment. He believes that cities need to choose fairly small, visually discernable areas in which to focus efforts to increase development intensity.

### Land Use Mixing

A mix of residential and commercial land uses is a fundamental feature of livable communities. In the past, residential and commercial areas were thought to be incompatible and deliberately separated through zoning. Today, some of the most healthy and attractive commercial districts in Southern California are those that combine housing with retail, services and office space and other commercial uses.

Land use mixing reduces automobile trips by locating residents within walking distance of shopping and working destinations. Mixing residential and commercial uses also adds vitality to areas that are otherwise exclusively working or shopping centers.

In higher density areas, vertical mixed use may be feasible, with housing over retail or office space. If multi-family housing is constructed at commercial activity centers, ground-floor retail should be required. In lower density areas or away from activity centers, horizontal mixed use is more likely, with housing behind or beside commercial space.

In Carson, the Villaggio is a mixed use development being constructed on Carson Street, a 4-lane arterial with many commercial uses. The development will provide 148

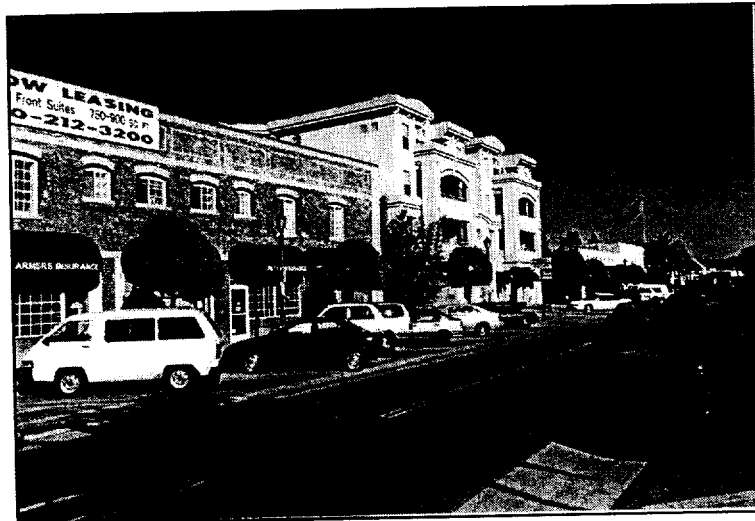
affordable units in an attractive Mediterranean design, with commercial space fronting the street. Portions of the building have no setback.

In **Redondo Beach**, plans have been approved for a mixed use project on Avenue I in the Riviera Village area. The project will feature 10,000 square feet of commercial space and 12 residential units in a small village setting. Also in **Redondo Beach**, the 1800 PCH project will feature 98 two-story detached condos (3-4 bedroom) over a ground level with 20,000 sq. ft. of retail space and parking. The project is being build on the site of an old Ford dealership.

Mixed land uses can be encouraged by cities through zoning (see Chapter 4 for details). Cities should identify mixed use zones and then allow mixed use development by right. Several of the South Bay cities do permit mixed use development, though few have created mixed use zones in an attempt to promote it. **Redondo Beach** has several mixed-use zoning categories, mostly along the PCH. All allow stand-alone commercial under 30,000 sq. ft., or residential units over commercial. **Manhattan Beach** allows mixed-use in three commercial zones with a use permit. Inglewood's C-1 zone (downtown) allows mixed-use. **Carson** has a mixed-use overlay zone on Carson Street (between Avalon and Main) that allows residential use in the commercial area, including the Villaggio project described above. The General Plan for the City of **Lomita** allows mixed use in the downtown commercial zone, but the zoning ordinance does not yet reflect this. In **El Segundo**, the C-RS zone downtown allows very limited residential space over commercial. The city also has designated a two Mixed-Use zones that allow retail, office, hotel and R&D, but no residential. **Torrance** allows mixed use in its three commercial zones. Like many of the cities, however, **Torrance** does not yet have specific criteria for the review of mixed-use projects so all are evaluated on a case-by-case basis.

A mixed use overlay zone can be an effective tool for adding a second use to an area that is primarily single-use. For example, a neighborhood commercial overlay zone could be applied to the major corridors of a residential area, or a multi-family residential overlay could be applied to commercial areas.

The **Old Torrance** area provides several good examples of attractive multi-family housing in a mixed-use setting. Although it does not lie on a major arterial, the area supports a variety of commercial uses. The Historic Downtown Mixed-Use Project includes both market rate and affordable multi-family units and a retail component with a restaurant, sandwich shop and coffeehouse. Nearby, the El Prado Apartments has ground-floor retail and 26 affordable residential units above. The building was originally constructed in 1927 and was recently renovated to create a more efficient floor area design accessible to disabled and senior residents.



Mixed use in Old Torrance

The appropriate mix of land uses depends on characteristics of the neighborhood and on market forces. For an activity node or town center area, an initial goal would be the following mix of uses, based on square footage:

- At least 20% residential
- At least 40% retail and entertainment
- At least 5% office
- At least 10% public and institutional

In general, cities should promote "goal-oriented" commercial uses at activity nodes, such as supermarkets, banks, cleaners, day care and drug stores. Less frequented commercial uses such as travel agents, specialty gift shops, tailors, doctors and dentists will not create substantial foot traffic by themselves. These uses are more appropriate on the street away from the activity nodes. Automobile-oriented uses should be discouraged at the activity nodes.

Some uses will be more feasible than others, particularly in the early stages of a project. In order to maintain some land use mix, cities should consider subsidizing unprofitable establishments, like small retail stores or cafes, until a critical mass is reached.

When cities are trying to introduce more mixed use in a commercial zone, they need to present a clear vision for the area to the public. Bill Watt of Baywood Development has built mixed use projects in Brea. He believes that the lack of public consensus can be overcome with strong leadership and a professional public input process. In Brea, where Baywood built the downtown Ash Street Cottages, the city made very clear their vision for the redevelopment area and got everyone on board. The process was started early so that by the time the projects were up for review, there was a lot of momentum to move forward. The NIMBYs were minimized. According to Mr. Watt, developers

like to go into a project feeling that the city is a partner. If the city is not behind a project, the developer will be left to hang in the wind at public hearings.

**Tempe, Arizona** recently completed their first vertical mixed use project called The Brickyard. Through this project they determined that the key to successful mixed use projects is to work closely with both developers and neighborhoods. Neighborhood support is crucial in getting these projects approved. In **Tempe's** case, the neighboring residents in single-family homes actually pushed the city for the project as a way to bring a café and small retail within walking distance.

## Density

In general, cities should work to increase the density of development along arterial commercial strips, particularly at activity nodes. Higher density creates a critical mass of workers, shoppers and residents that can support local businesses and animate public spaces. Higher densities are also needed to support frequent transit service. The appropriate density depends on the conditions of each individual locale. In most of the South Bay cities, the maximum commercial density allowed on arterial streets is 1.0 FAR. Many portions of arterials have a maximum density of 0.4 or 0.7 FAR. These densities should be raised at the activity nodes designated by the city. **Lomita's** 1998 Draft General Plan calls for a Mixed Use Overlay Zone for the area adjacent to the intersection of Narbonne and Lomita Boulevard. This zone, which would allow up to 17.4 units per acre of residential and commercial built to an FAR of 2.0, has not yet been implemented in the city's zoning ordinance.

Simply increasing the zoned density is not enough, however. The commercial density on many South Bay arterials is far below the zoned limit. Cities need to work to ensure that higher densities get built at the activity nodes. For a sustainable activity center that supports frequent transit service, a possible goal would be the following:

- At least 16 dwelling units per residential acre, and
- At least 230 employees per commercial acre.

One way to accomplish this is to set a minimum density for specific pedestrian-oriented activity nodes. For example, the City of **Beaverton, Oregon** requires in certain mixed use zones a minimum density of 0.6 FAR for commercial projects and 30 units per acre for residential projects.

The survey of communities outside the South Bay indicated that the biggest obstacle to building livable communities projects is residents' fear of higher density and/or traffic. The strategies suggested for dealing with this include: 1) a good design that is both attractive and blends in with the surrounding neighborhood, 2) working closely with developers, especially early in the process, and 3) working closely with neighborhoods.

**Tucson, Arizona** faced strong opposition to higher density in their efforts to improve

Speedway Boulevard. Once dubbed the “ugliest street in America,” the city revitalized the corridor by buying up parcels on either side of the street, reassembling them and selling them off to developers, and using transportation funds to make design improvements. In response to concerns over higher density, the city educated developers on how to design and sell acceptable projects to the public.

### **2.3.2 Site Design**

On many South Bay arterial streets, the layout of commercial sites results in a visually unattractive urban space and poor pedestrian access. Many sites have long setbacks that create a disorganized, unappealing visual effect and break up any street wall that gives form to the streetscape. Street-fronting parking lots are unattractive and leave sidewalk users feeling vulnerable. Walls between parcels discourage pedestrian movement between uses. Neighboring residents must walk around to the front of commercial areas and then through the parking lot.

An essential component of livable communities is a pedestrian environment that encourages outdoor walking. Commercial districts that feature a high amount of pedestrian activity are almost universally preferred to those dominated by automobile traffic and parking lots. People simply enjoy walking.

Throughout Southern California and the nation, the most successful retail environments today are those that emulate Main Street shopping districts of the past. High levels of pedestrian activity leads to human interactions that make an experience memorable and enjoyable.

Pasadena provides a good examples of a walkable, Main Street shopping environment. The city’s old, central city traditional mall is being completely rebuilt as a mixed-use urban district. The existing regional shopping center, Plaza Pasadena, is being converted into the outdoor Paseo Colorado, an interconnected network of street-front retail, office, entertainment, 400 for-rent urban lofts and apartments, and public space. Completion is scheduled for 2001.

#### **Layout**

The spatial quality of the street and the pedestrian experience are directly affected by the building setback. A typical arterial street in the South Bay features single story buildings set behind wide parking lots. The single story buildings do nothing to define the space. A streetscape should be viewed as a room and the buildings provide the walls of that room. A street with a defined space looks attractive and feels comfortable to both pedestrians and drivers.

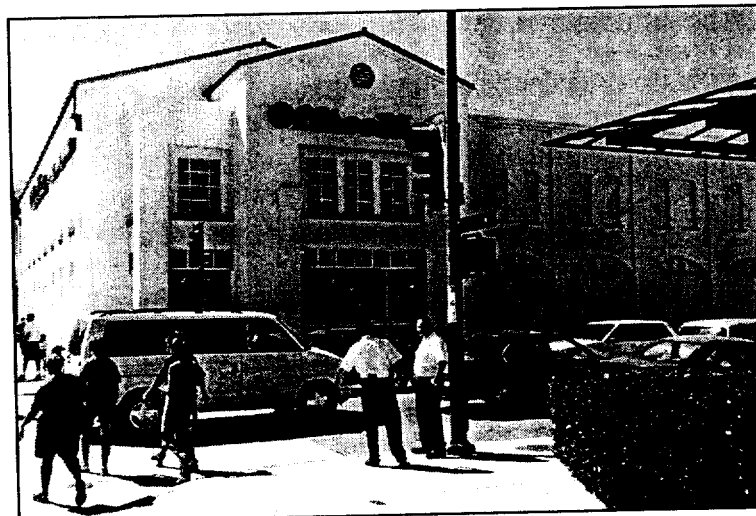
The configuration of retail along commercial streets must balance pedestrian and automobile access, visibility, and aesthetics. Smaller retail stores should be oriented toward pedestrians. Larger anchor stores should provide a street as well as a parking

lot entrance.

Local governments should identify pedestrian-oriented areas and develop appropriate minimum *and maximum* setbacks for those areas. They should also set goals for the number of buildings or portions of buildings built to the lot line, goals that will vary depending on the circumstances. For example, **Bellevue, Washington**, has “build-to” lines rather than required setbacks to encourage street frontage. In older downtown neighborhoods, it might be appropriate to require a minimum of 80 percent built to the lot line. Along arterials that have less pedestrian activity, it may be more realistic to require 30 to 40 percent built to lot lines. On some sites, cities should also require that the sides or back of a building be built to the lot lines.

**Lawndale’s Hawthorne Boulevard Specific Plan** includes detailed design guidelines that encourage smaller, sidewalk-adjacent businesses and a “village” or “neighborhood” atmosphere. There is no minimum required front setback and a maximum setback of 10 feet. The program also allows a 20 percent FAR increase and a 10 percent reduction in required parking for consolidation of small lots, pedestrian amenities such as public plazas and pedestrian linkages, and projects that provide “exceptional benefits” to the city or “exceptional design.”

Chain retail stores often prefer to build a standard site layout with large setbacks and street fronting parking. When required, however, many of them will build in a way that creates a more attractive street front. **Pasadena**, for example, has a Rite Aid, Office Max and Target store all built with little or no setback.



Large format retail with no setback, Pasadena

Pad buildings often occupy the corners of parking lots in large retail centers. They are typically used by banks, restaurants, video stores and gas stations. When properly designed, pad buildings can help to break up large parking lots and provide more visual continuity along the street. When poorly designed, pad buildings impede pedestrian

access, contribute to vehicle circulation problems, and ignore architectural themes.

Pad buildings must be linked to the pedestrian path system of the larger site and must not impede foot traffic. For automobile-oriented uses such as gas stations and fast food restaurants, vehicle curb cuts must be minimized and vehicle queuing areas located away from the street. Buildings should be integrated with the overall development in terms of scale, materials and landscaping.

### Access

Pedestrian, bicycle and transit access to commercial buildings is often an afterthought in arterial strip zones. All commercial development should provide attractive and convenient access to the building for those who do not arrive by car. Doors should be oriented to the sidewalk in front of the building. If a building has parking and an entrance in the rear, another entrance should be provided in the front. Transit stops should be linked to the building door via a direct pedestrian walkway. Bicycle parking should always be included in a visible location near the door.

Many cities still require a masonry wall between commercial and residential uses or even between adjacent commercial sites. Lomita requires a "solid masonry wall, not less than six feet in height" on commercial lots adjoining residential zones. These walls are a barrier to pedestrian circulation. Unless neighboring uses are grossly incompatible, cities should encourage pedestrian links. If barrier walls are necessary, gates or openings should be included on all sides and the walls should be landscaped with vines or shrubs.

The City of Chula Vista requires that new development complete a design element checklist that identifies land use and urban design features that the city expects from new development. These elements include pedestrian connectivity, higher density and reduced parking near transit stops, and bicycle paths and storage. The stated purpose is to reduce new project automobile use and emissions.

### 2.3.3 Commercial Building Design

The design of commercial buildings is as important as site design in creating livable communities. Commercial buildings can be cold, uninviting and places where it is difficult to even locate the entrance. Inexpertly designed mirrored buildings without any elements to soften their appearance are cases in point. Commercial buildings can be scaled, articulated, detailed and landscaped as to welcome all passersby.

Commercial building design includes factors such as style, envelope and façade of the building. Specific design obviously depends on the context of the lot. The principles put forth here may serve as a useful toolbox for developing designs, but the ultimate success of the project will depend upon community support and acceptance of the project, and how that project addresses the unique character of the neighborhood.



## Building Style

Modern master planned communities have typically tried to enforce a sense of community architecture through rigid, mandatory sets of rules that define a single architectural style. This should not be the approach, or the desired outcome, of commercial building design in the South Bay. Rather, the intention is to encourage a range of appropriate, site specific architectural solutions that fit the climate, the geography and the culture of this special place and time.

Historically, consistency of building scale, color, texture, and vernacular was based on availability of materials and technology. Today, such limitations rarely exist and buildings on the same street often compete for attention by using completely unique and unrelated design features and contrasting colors. High levels of contrast can create garish visual chaos, and contribute to a sense of dislocation.

On the other hand, absolute rigidity regarding color, finishes, and style can create a monotonous, uninteresting environment. Therefore, creating general rules about colors and finishes of buildings according to neighborhood is risky because the results could create an area with little variation; appearing to be a track development. Both rigid consistency and unbridled variation should be avoided.

The Harbor/Civic Center Specific Plan in **Redondo Beach** provides detailed architectural and design guidelines for the area between the PCH and the city's harbor. In addition to land use, density and setback requirements, the plan recommends building massing and articulation goals.

Similarly, **Manhattan Beach** has issued Design Guidelines for its downtown area. The guidelines include recommendations for architectural elements, pedestrian amenities, landscaping and signs. They are intended to preserve the area's small-town village character and pedestrian orientation as well as encourage new streetscape amenities.

## Building Envelope

Guidelines for building envelope and footprint depend on the context of the site. It would be inappropriate to say that all building footprint, regardless of context, should be built to the edge of the street. Generally, more pedestrian-oriented areas should have more façade along the street edge. It is also important that these façades have openings and details. Large, featureless, blank walls should be avoided.

The building height for particular streets varies according to the width of the street. While it is impossible to provide an absolute ratio of street width to building height that provides pedestrian intimacy in every case, some generalizations may be made. Along commercial streets in the South Bay the ideal ratio of vertical to horizontal ranges from 1:2 to 1:4 (Figure 2.3). This ratio applies to all street widths. So, for example, a street and sidewalk 100 feet wide should be lined with buildings at least 20

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to 40 feet in height. Buildings on a 50-foot right-of-way should be at least 10 to 20 feet high.

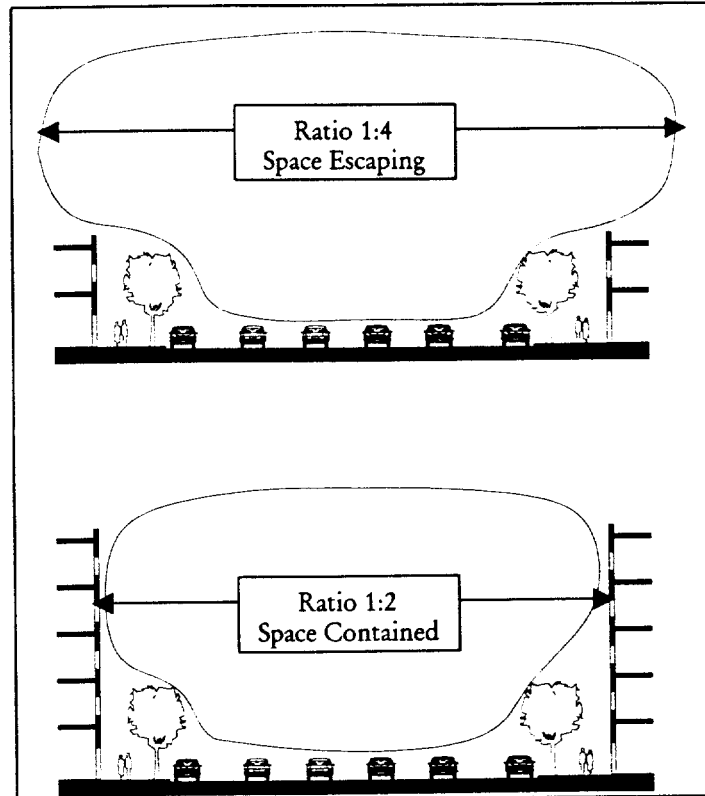


Figure 2.3

Every project should enhance the public realm. Projects above a minimum size should be required to provide private owned public space, such as plazas with seating, shade, and landscaping. Buildings should provide open views into interior spaces to create more dynamic visual interaction. Entryway design elements should contribute to the character and identity of the building and the neighborhood context and improve orientation and ease of use by customers. Rooflines should be varied using cornice treatments, parapet wall details, overhanging eaves, etc., to enhance architectural character.

Trash enclosures and rooftop mechanical and telecommunications equipment should be screened from view. Requiring screening around all mechanical equipment on rooftops reduces negative visual impacts on neighbors, and can reduce energy costs. The roof and parapet design can also screen mechanical units. The location of trash enclosures should account for neighboring residential areas. Loading docks should be located behind the building and accessed through an alley where possible.

The Redondo Beach General Plan designates a portion of Artesia Boulevard as a "Pedestrian-Oriented, Community-Serving Commercial Center." The sub-area covers

three blocks between Rindge Land and Phelan Lane and features a large portion of sidewalk-fronting small commercial buildings. In addition to the conditions imposed by the area's C-4 zoning, the sub-area is subject to specific design standards that are intended to enhance the pedestrian environment. Specific standards include the following:

- A minimum of 50% of building frontage within proximity to the sidewalk;
- Provision of visually and physically transparent building elements along the majority of the ground elevation;
- Incorporation of arcades and other recesses along the street elevation to provide visual relief and interest;
- Incorporation of landscape which visually distinguishes the site and structure.

### Building Façade

The façade of a building plays a critical role in determining the quality of the pedestrian experience. In new development, cities should pay careful attention to the design of building façades, as these become the "walls" of an urban streetscape. Some older commercial areas on arterial streets feature badly dilapidated facades. Cities should encourage improvement in these areas by making funds available.

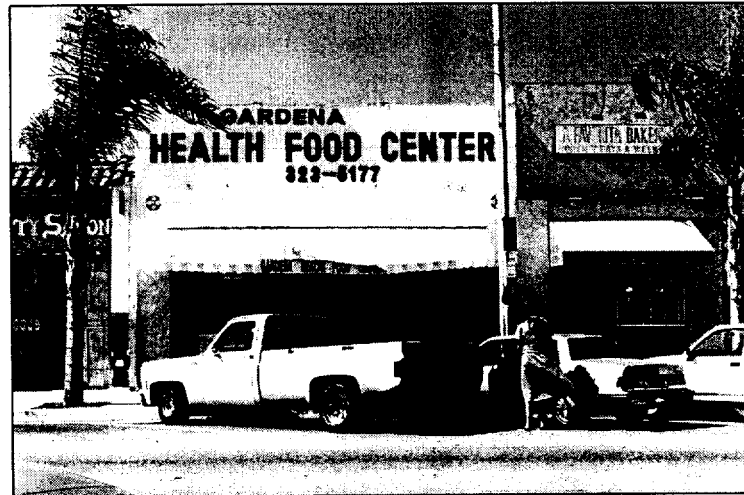
For example, as described in Chapter 4, West Hollywood has a commercial revitalization project that offers grant money for façade improvements. The project allows up to \$25,000 per building and can fund the improvements of up to 10 storefronts per year.

Historic building façades should be preserved wherever possible. These buildings can form the basis for a pedestrian-oriented activity node. Although most commercial development in the South Bay cannot be considered historic, pockets of older buildings on arterial streets do exist throughout the subregion. For example, attractive older brick façades front the street in Lomita at the corner of Lomita Boulevard and Narbonne. The Walteria District at the southern end of Hawthorne Boulevard in Torrance features older street-fronting buildings. Some attractive older buildings line the street in Downtown Inglewood, near the corner of Market and Manchester. Downtown Gardena also has some older building façades, though several are covered by more modern additions.

New building façades should be articulated to add visual interest whenever possible. The design of the façade can provide protection from the weather with awnings, overhangs, balconies, and loggias, and these should be encouraged.

Diversity in building façade design should be encouraged, without creating a chaotic image. This diversity can be accomplished through articulated façades and varied materials such as stone, wood, concrete, and masonry. Highly reflective glass walls

should be discouraged – they function like solid blank walls by minimizing visual interest and preventing pedestrians from viewing interior spaces.



Gardena Boulevard

Façade details should be encouraged, as they can cast shadows on the façade and help create visual interest. Windows and numerous building entries are recommended in core commercial areas. Retail and service activities should be provided on at least half of all street-level façades along commercial streets.

Commercial buildings should also ensure compatibility with surrounding uses, particularly neighboring residential buildings. Commercial building lighting should be focused so residential uses receive minimum glare. Landscaping can also be used as a buffer between uses.

### **2.3.4 Multifamily Building Design**

An important goal for the South Bay is to increase housing density along arterial streets. Multifamily housing fills a much-needed niche for young families and seniors who cannot afford or do not need a detached single-family home. Higher residential density is needed to enliven commercial pockets, and makes more frequent transit service possible.

The primary opportunities for new multi-family residential development are at the edges of the single family neighborhoods along major corridors and arterials. Housing can also replace non-viable commercial uses. Some arterial streets are lined with commercial uses that exhibit high rates of turnover and vacancy, a condition made inevitable by an excess of commercial space in certain communities. Cities should encourage redevelopment of these properties with housing. While these “edge” sites may be politically more palatable to the community, they present significant challenges requiring the rethinking of both housing and street typologies. The challenge is to

create a quality alternative urban housing typology on relatively high volume streets.

First it is important to recognize that as a result of changing populations and changing lifestyles, there is a significant demand for more urbane, lively housing alternatives. The California Dream is evolving – not everyone wants to live in a single family residence. The resurgence of downtown neighborhoods such as San Diego's Gas Lamp District and Little Italy proves that there is a strong market for multifamily housing and mixed-use projects. Singles, couples without children and empty nesters all enjoy the option of an urban lifestyle, living in close proximity to pedestrian-oriented retail and services.

The key is to transform the vehicular-oriented arterials into attractive, pedestrian-oriented streets. The tools are described throughout this report. They include wide sidewalks, street trees to visually separate the street from the housing, parking buffers to protect the pedestrian, and, where appropriate, active ground floor retail uses to create interest and activity. It is probably unrealistic to assume that mixed-use is viable along the full extent of the corridors. Rather, mixed-use retail thrives at nodes with appropriate levels of traffic and visibility.

Careful attention to building and site design can help ensure that housing is compatible even on streets with fairly high traffic volumes. Increased housing density near older downtown areas should also be encouraged and folded into commercial via mixed use whenever possible. New multi-family developments must address the site context through scale, building materials, landscaping and quality of design in order to be acceptable to existing residents.

The density of dwelling units (du) per acre affects the character of the neighborhood as well as the possibility for supporting public transportation. Small-lot single-family residential homes can range from 6 to 10 du/acre, whereas townhouses can provide 18 to 29 du/acre. Three-story apartment buildings can provide 35 to 50 du/acre. The appropriate density of housing depends on the context of the community. Density levels should be decided according to the surrounding areas and the desired character of the neighborhood.

### **Building Height and Setbacks**

It is unrealistic to assume that quality residential space can be built at-grade on major arterials. It is important to protect the privacy of the lowest level of residential use by raising the floor level to approximately 3 feet above the adjacent grade. This places the bottom of a typical window at approximately 6 foot above grade so that passing pedestrians can not look directly into the unit. Stoops and porches can effectively define private front door entrances into raised townhouse units fronting the street. This has proven to be both a highly marketable housing unit and a valuable contributor to "eyes-on-the-street" passive security.

If a mixed use project is viable, ground floor retail space can serve as the buffer between the street and residential units. Housing can be located above and behind the retail. In Carson, the Villaggio development has this configuration on Carson Boulevard, a 4-lane arterial.



New housing on Carson Boulevard

A more controversial solution, but one worth serious consideration, is to allow enclosed parking at the first floor level as long as the design is treated as an integral part of the overall architecture of the building. The advantage of this strategy is that it places the first residential floor approximately 10 feet above the adjacent sidewalk. The disadvantage of this strategy is the potentially negative impact of a "non-active" use on the pedestrian quality of the street. Many highly successful urban housing projects in San Francisco incorporate ground floor parking without damaging their pedestrian-oriented neighborhoods. The success of these projects relies on the fact that the building elevation at the parking level is not open, dark and uninviting – rather, it is treated as an integral part of the architecture of the building, creating an attractive "base" for the residential units above. The "base" is further enhanced by the incorporation of a primary visitors' building entrance accessible directly off the street level.

In Torrance, the Historic Downtown Mixed-Use Project on El Prado Avenue has semi-subterranean parking underneath two levels of residential units and retail. The parking is used by both residents and the public.

Setbacks represent an additional strategy for creating high quality living environments on a major street. A highly landscaped 15 foot setback has the advantage of creating a strong visual buffer between the public right-of-way and the private residential unit (Figures 2.4 and 2.5). However, landscape, while attractive, is not necessarily a strong urban edge for a pedestrian oriented street and specific care must be taken to insure that the landscaping does not create opportunities for hiding spaces and/or

inappropriate behavior. The use of setbacks at the second floor, whether above retail or parking, is probably a better strategy for enhancing the privacy of the units while maintaining a strong streetwall. Even this use of setbacks has the potentially negative impact of reducing the visibility of the street from the residents who provide passive security to their own neighborhood.

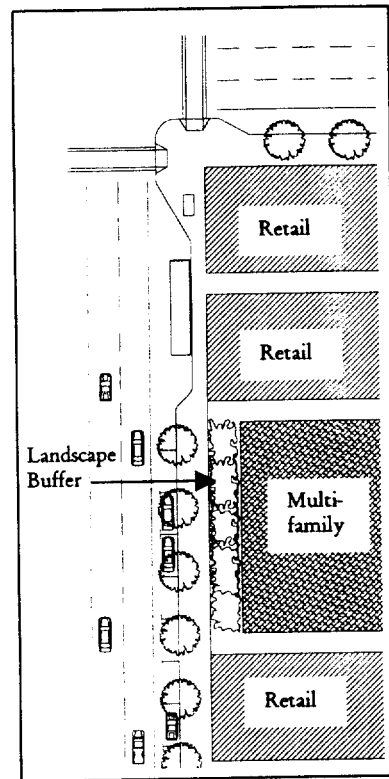


Figure 2.4

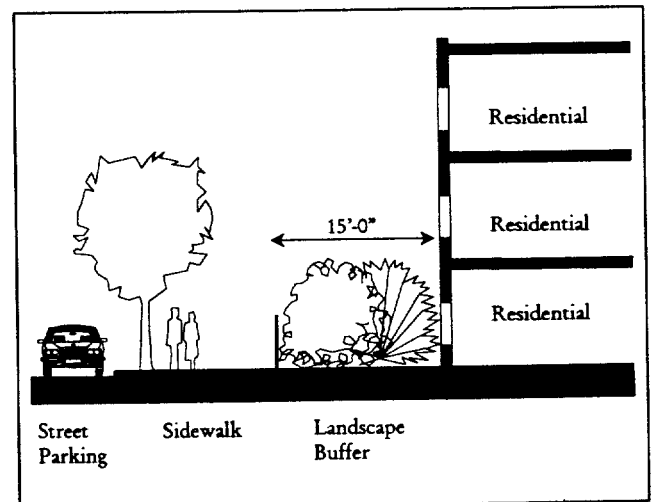


Figure 2.5

## Open Space

Multi-family housing should have access to both public and private open space. Private open space can be created for residents by arranging units around a central courtyard (Figure 2.6). Public open space provides a neighborhood focal point and should be located next to public streets, residential areas, and retail uses. It should not be used as a buffer to surrounding development or to separate buildings from streets. Parks should be suitable for informal gatherings and public events and therefore need to be sited in an accessible and safe area.

Open space requirements should respond to the on-site population need. Small and frequent parks should be dispersed throughout residential areas to provide auto-free play areas for children. Larger parks of one to four acres can easily accommodate activities such as basketball, tennis, tot lots, gardens, picnic areas, and walking paths. Parks can also include existing natural features. The more visible a park is from the

street and neighbors, the safer it will be.

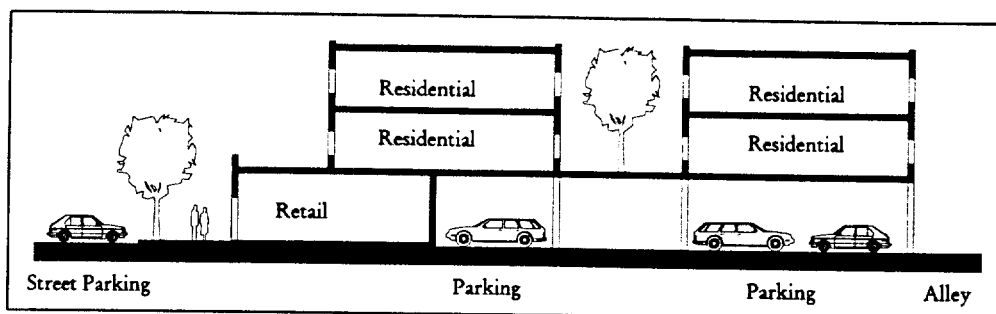


Figure 2.6

## Residential Parking

Infill multi-family housing is usually built on small sites without space for large surface parking lots. Ideally, resident parking is built underground or at least half-submerged underneath the residential building (Figure 2.7).

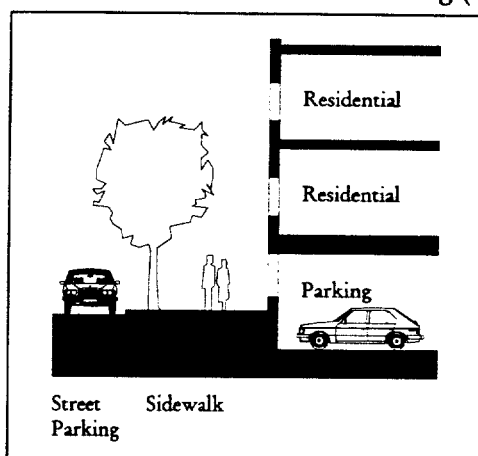


Figure 2.7

The cost of providing parking for new housing can be significant and this helps to discourage infill housing development. As discussed in detail in Chapter 4, cities should allow more flexibility in the design of parking. Examples of innovations in parking design that allow developers to reduce costs include:

- **Tandem parking:** Cities should allow residential tandem parking. Tandem parking means two cars are parked end-to-end. Housing units that are provided with two spaces have their vehicles parked in tandem, which reduces the size and cost of the parking structure.
- **Off-site parking:** In some cases, resident parking can be provided off-site. When older buildings are renovated with housing in older downtown areas, it may be difficult to build enough parking. A portion of a



neighboring public garage can be reserved for resident parking. For example, the Promenade in downtown Brea was recently developed with apartments that have parking in a structure across the street.

- **Mechanical parking:** A few California cities are now using European-designed mechanical parking stackers. Called "Klaus Parking Systems," these devices allow two or three cars to be parked in the space of one and can prevent the need for a costly multi-story structure. Hydraulic lifts are operated by residents to raise and lower cars to the ground level. A mixed use project was recently completed on a major arterial in Berkeley that uses mechanical parking stackers to reduce the size and cost of the parking garage.

### Nuisance Issues

When housing is built in close proximity to commercial uses, the residential units are somewhat more vulnerable to nuisance problems. However, it is important to note that the friction of adjacencies is not limited to mixed-use projects but rather is a reality of intensified development. There may not be a significant difference in the level of nuisance concerns between residential units built over a commercial use versus residential units built on an adjacent lot or even on a lot separated by an alley from the commercial uses. Design strategies can help mitigate, and even eliminate, some of these problems.

Noise from street traffic can be problematic for residents. The increased use of dual-glazed windows due to energy concerns has brought the cost of these acoustically superior windows down to a level where requiring dual-glazed, sound-rated windows in residential projects is economically reasonable. The noise generated by traffic within the commercial parking portion of the project can be significantly greater than the sporadic noise of cars accessing a residential parking structure. Therefore, consideration should be given as to whether the commercial parking should be fully enclosed to encapsulate the noise. Particular care should be taken in the siting of loading areas and parking entrances and exits.

Commercial noise may also impact the quality of the open space within the residential portion of the development. Fountains create a "white noise" that can help mitigate light traffic sounds. Perhaps the most effective design technique is siting the open spaces away from the street and toward the back of the site, though this will be affected by other factors such as view and adjacent uses.

Light from high street lamps and bright automobile headlights can glare into the residential units. Street lamps near mixed-use projects should be shortened to pedestrian level scale where possible to reduce the amount of light that can shine into the residential units above the first floor.

Parking structures adjacent to residential units can also shine into the units through windows. Where possible, adjacent parking garages should use solid guardrails instead

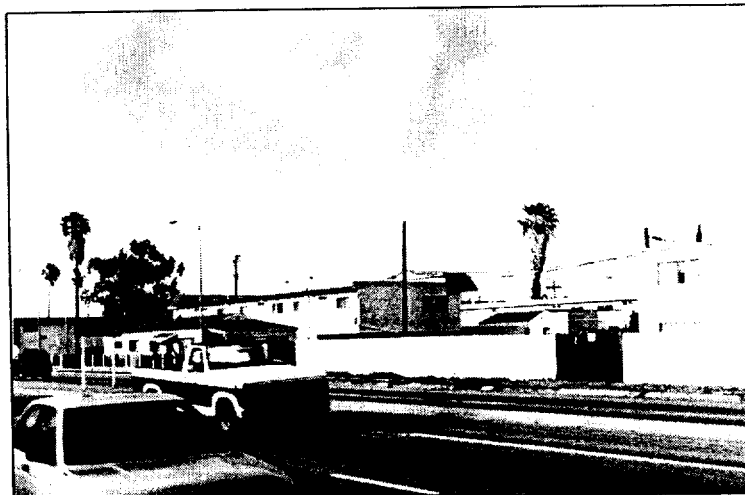
of open rails. This option does not preclude naturally ventilating the garage since the area left open above the 42" guardrail is typically sufficient to achieve the required percentage of open area. The cost of solid guardrails may be slightly more, but will protect the adjacent residential from glaring headlights.

The overhead lighting in the parking structure must be shielded to prevent light pollution and glare from impacting adjacent residential uses. Selecting the appropriate strategy of protection from light pollution will depend greatly on the design goals and context of the site.

Resident safety is a critical component to the success of marketing residential units on commercial streets. First, the parking area should be as secure as possible, using strategies such as gated access and security patrol. Second, the residential lobby should be accessible only to residents and their guests, so intruders cannot enter the private areas. Finally, the façade should not be climbable. Intruders sometimes enter units by using projections and low balconies.

### 2.3.5 Sidewalks

Livable communities encourage walking by providing sidewalks and pedestrian pathways that are attractive, safe and convenient. In many arterial strip areas of the South Bay, the pedestrian environment is both unpleasant and unsafe. Sidewalks often have few pedestrian amenities such as street furniture, kiosks or fountains, and public spaces such as outdoor plazas and café seating are rare. The signs and lighting are designed for automobiles and are not at human scale. Landscaping is sparse and street trees, if present, are often too small to create shade or a canopy effect.



No sidewalk on Western Avenue

Real and perceived safety problems also discourage pedestrians. In some parts of the South Bay, streets that carry 50,000 vehicles per day have no buffer between sidewalk

and fast moving traffic lanes. Frequent sidewalk interruptions create hazards for sidewalk users. Sidewalks disappear at the curb cut and continuous asphalt from the street into parking lots encourages drivers to not slow down and leads to dangerous conditions for pedestrians.

## Design

Sidewalk design should provide the walker with a comfortable and safe feeling. The width and character of sidewalks plays a key role in this pedestrian experience. While very wide sidewalks are not needed except in areas of heavy pedestrian traffic, sidewalks should allow two wheelchairs to pass comfortably and still leave room for street furniture and landscaping. Sidewalks should be reconstructed in places where tree roots have severely damaged the pavement. When new sidewalks are installed, cities should consider alternatives to plain concrete as a way to define the pedestrian space. New paving materials allow for color and texture without compromising safety or durability.

## Sidewalk Interruptions

Curb cuts and sidewalk interruptions from parking lots and drive-through retail should be minimized. When driveways do interrupt sidewalks, the sidewalk paving should continue across the driveway to alert drivers. Turning radii at driveways should be kept small to encourage drivers to enter and exit slowly. If drive-throughs are allowed, the drive-through window(s) should be oriented away from street frontage. Landscaping should be provided to reduce the visual impact of vehicle stacking areas for side yard drive-through windows.



Interrupted sidewalk, Carson Street

## Sidewalk Amenities

Benches can add visual interest to the pedestrian environment and encourage walkers

to stop and linger. A variety of benches are now available that are attractive yet durable and require little maintenance. Durable trash receptacles should also be placed in pedestrian areas and included as part of a regular collection plan.

Landmarks along the street make places interesting and memorable. These can include kiosks, monuments, sculpture and other public art, special signage, and water features. Distinctive paving patterns should be encouraged in special areas such as historic districts and at intersections.

### Street Trees

Street trees are extremely effective at creating a more visually appealing urban form for both pedestrians and drivers. Street trees provide shade, reduce urban temperatures, and serve as a buffer between the sidewalk and traffic lanes (see Chapter 5 for a discussion of the "urban heat island" effect). Ideally, street trees should be placed 25 to 35 feet apart, with clustering at plaza areas or other public gathering places.

Street signage needs to be carefully coordinated with any tree planting. The selection of street trees requires consideration of multiple factors including canopy size, aesthetics, maintenance, drought tolerance, and the potential for root damage to sidewalks. Care must be taken to ensure the long term health of street trees by providing adequate access for the roots to obtain oxygen. If necessary, decorative ADA-compliant tree grilles can extend the walking surface while allowing tree roots to breathe.

### Street Lighting

On many arterial streets, the lighting is scaled for automobile use only. Lower street lighting, at the scale of the pedestrian and oriented towards the sidewalk, should be provided along commercial streets (Figure 2.8). The lighting fixtures should have visually interesting details and must be spaced at more frequent intervals than automobile street lights because their lower height limits the distribution. It is particularly important to provide high quality pedestrian lighting around transit stops.

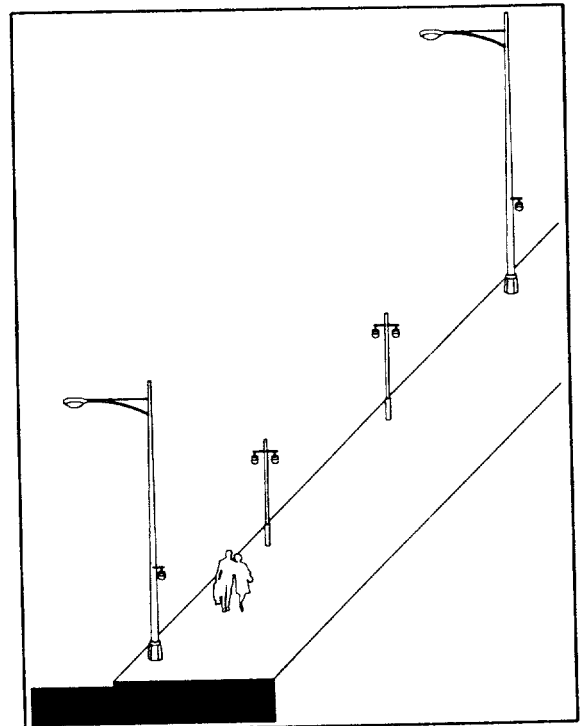


Figure 2.8

## Sidewalk Plazas

Public open space is an important part of an interesting and vital commercial core. This is a place where neighbors run into each other, where shoppers rest between stores, and where workers step out for fresh air. Cities should encourage development of small public plazas at the center of commercial activity nodes. Smaller plazas should include seating areas and appropriate landscaping. In larger plazas, sidewalk vendors and outdoor café seating should be encouraged. Properly designed with features such as fountains or public art, a plaza can serve as the centerpiece of a commercial node and as a community center.

Restaurant and café seating along the sidewalk animate the public right of way. Many cities allow sidewalk seating only after a cumbersome permit process. Cities should encourage outdoor seating through a clear and quick permit process, by right, or even by offering incentives to café operators.

## Alleys

Sidewalk improvements should not be limited to just major streets. In some parts of the South Bay with higher density and older building stock, alleys provide alternative pedestrian pathways and direct access to buildings. Some of these alleys have the potential to become attractive pedestrian spaces. Since most older commercial buildings maintain trash bins and loading areas at the rear, additional screening may be needed to create pleasant walking environment. Commercial buildings with entrances on alleys should be encouraged to use and maintain these access points. If surface parking is provided behind buildings off an alley, pedestrian access routes should be provided through or around the parking areas.

### 2.3.6 Parking Design

Parking design is a critical issue in building livable communities in urban areas like the South Bay. Large, uninterrupted parking lots are probably the most unattractive feature of the South Bay urban environment. When parking lots dominate the street frontage, they send a clear message that the facilities behind them were intended for automobile access only.

Those arriving at these facilities by foot, bicycle or transit face a daunting task. In addition, because of their vastness large parking lots often feel dangerous at night. They fill valuable land with void, thus ensuring that even thriving commercial districts remain at low densities and that individual facilities remain separated.

Clearly, the proper design and placement of parking lots can go a long way toward improving the attractiveness, safety and pedestrian access of commercial and residential areas. Strict design standards should be applied to all new parking lots. In critical pedestrian-oriented nodes, cities should consider retrofitting existing parking lots that

hinder livable community objectives.

Cities also need to be more flexible on parking requirements. In interviews with Southern California infill developers, each one agreed that by far the most important livable community strategy cities can adopt is to relax parking standards. Chapter 4 provides details on recommended parking policies and strategies for flexibility.

Parking areas are generally classified as on-street or off-street. On-street parking can take a variety of forms and is an important part of residential and older commercial areas. Off-street parking makes up the bulk of commercial parking in the South Bay, and generally needs the most attention from planners and urban designers. Most off-street parking in the South Bay is in the form of surface lots, though structured and underground also exist.

### On-Street Parking

On-street parking should be allowed in commercial districts wherever feasible. On-street parking reduces the need for commercial off-street spaces, and is particularly important in older downtown areas to support existing structures without on-site parking. It also serves to buffer pedestrians on the sidewalk from fast-moving vehicles.

Depending on available right-of-way, on-street parking can be parallel or angled to the sidewalk. Parallel parking spaces are usually 8' wide and 20' long. Angled on-street parking allows more cars to be parked along the street, but requires a larger right-of-way.

Lomita's 1998 Draft General Plan calls for reintroducing diagonal parking on Narbonne by reducing the street to two lanes to reduce travel speeds and make it more pedestrian friendly.

Cities often choose to remove on-street parking from arterial streets in order to increase capacity, or at least prohibit it during peak traffic periods. Cities should carefully consider these decisions, recognizing that on-street parking is most important to small commercial establishments located in older buildings that lack off-street lots. If cities want to preserve the viability of older commercial areas and retail street-fronting retail, on-street parking must be allowed. On-street spaces are usually most needed during the evening commute time, when many people run quick errands on the way home from work. The need for a pedestrian buffer is also most acute during the heaviest traffic periods.

The fear of on-street parking spillover into surrounding residential communities is one of the largest impediments to densification. An effective parking permit program can help ease residents' concerns.

## Off-Street Surface Parking

Large uninterrupted parking lots should never be allowed in areas where cities hope to encourage pedestrian activity. In pedestrian-oriented commercial areas, parking should be located behind buildings. If this is impossible, partial street frontage can still be achieved by locating parking to the side of buildings. Off-street parking in front of buildings, fronting the sidewalk, is inconsistent with livable communities principles. Where conditions permit, behind-building parking can be accessed from an alley. Otherwise, behind-building parking can be accessed through drives along the side of the lot.

When surface parking lots must be built, it is imperative that they be made as attractive as possible and not discourage access by alternative transportation modes. Large surface lots should always be constructed with dedicated pedestrian pathways that connect the sidewalk to building entrances. These pathways should be marked with distinctive paving and landscaping and must be well lit. Further enhancement can be achieved by constructing a pedestrian plaza in front of buildings where the pathways terminate. The retrofitting of existing large parking lots is discussed in Section 3.3.5.

All new or improved parking lots should include extensive tree planting. Trees and landscaping can go a long way toward softening the visual impact of large parking lots, and can help define the pedestrian space. Trees also significantly reduce the heat absorption of parking lots (see Chapter 5). Cities should set a ratio of trees to new parking spaces – some cities require one tree per every four spaces. Cities can also require that trees are planted to provide a set amount of shade over time. For example, **Los Angeles** requires that new parking lots be sufficiently planted with trees so that the lot is 50% shaded within ten years.

If large parking areas are absolutely necessary, they should be visually and functionally sub-divided into smaller lots. **Albuquerque, New Mexico** requires that large parking areas be segmented into sub-lots of roughly 50 spaces each. Each sub-lot (consisting of two traffic lanes) must be traversed by a pedestrian walkway and shade trees. Multiple sub-lots may be joined as part of a larger lot, but each must have a pedestrian path and trees.

Parking lots must be well-lighted at night for safety. At the same time, garish lighting from high poles is unattractive and may disturb neighboring residential areas. Light pollution can be reduced in several ways. Using “full-cutoff” luminaires will avoid uplight or glare. Using low lighting poles rather than floodlights will help keep light at the ground. Mercury vapor lamps should be avoided because they give off too much light. Instead, use metal halide or high-pressure sodium lamps. Low-pressure sodium lamps are the most efficient, but they give off a yellow, monochromatic light and therefore may not be appropriate in many areas.

## Structured Parking

Parking garages should be encouraged whenever densities and land values make it feasible. As discussed in Chapter 4, cities should encourage developers to pay a parking fee in lieu of building a new surface lot, then use these funds to construct a community parking garage.

The design of parking structures is important to reduce their visual impact. Structured parking should be located behind buildings or away from the street edge wherever possible. If parking structures do occur along the sidewalk edge, retail or other commercial uses should be provided at street level and the parking structure should be treated as an architecturally significant feature and made compatible with the architecture of the primary surrounding buildings. Protection from car headlights to adjacent properties needs to be provided, especially if the adjacent use is residential. A short visual screen can address this problem.

If commercial space is to be included in a parking structure, first floor clearance must be at least 10 feet. Clear space from the floor to the underside of the lowest beam can be 8 feet on the second floor and above, where retail does not need to be accommodated. For small retail to be located on the first floor, a clear depth of between 30 to 50 feet must be provided.

## Subterranean Parking

Subterranean parking minimizes negative impacts on pedestrian-oriented street frontage and reduces the surface area devoted to parking. It is the preferred alternative and also the most expensive, and is therefore feasible only where densities and land values are relatively high.

Subterranean parking with a building above uses land most efficiently. When residential use is above, subterranean parking can be semi-depressed, allowing the finished floor of residential to be above the sidewalk level. Integrating parking with security can be a valuable strategy for privacy and security at the first level of residential development.

The Historic Downtown Mixed Use Project in Torrance provides a good example of semi-depressed parking. The parking garage serves both residents living above the garage and public patrons of the retail uses.

## Shared Parking

Shared parking occurs when two or more establishments share the same parking spaces. By taking into account differing peak parking demands, shared parking reduces the total number of spaces required compared with simply adding together the parking requirements of each individual land use.



Shared parking programs can encourage mixed use development by reducing its cost and also reduces the land area devoted to parking. Land uses considered to have the highest potential for shared parking include churches, offices, schools, restaurants, and movieplexes. Retail, banks, and public parks can also participate in shared use arrangements.

Businesses and developers are often interested in shared parking as a way to reduce costs, but the prospect of regulatory red tape discourages implementation. Cities can encourage shared parking by including shared parking guidelines in their codes. (See Chapter 4 for more details.)

Scottsdale, Arizona's shared parking program specifies the percentage occupancy for each land use by time of day periods, allowing developers to easily estimate the amount of sharing they can expect from other uses. Scottsdale's evening-use parking credit system allows establishments that operate in the evening to reduce their parking requirement by taking credit for unused parking on the same site, on adjacent sites or on-street.

### **2.3.7 Streets**

Automobile use in the South Bay will remain high for the foreseeable future. Most residents and visitors travel via the long, straight arterial streets that crisscross the subregion. These streets carry high traffic volumes and many are at or near capacity. Rising incomes, increased population, and greater commercial development will certainly put more cars on these streets in the coming years.

Heavy traffic volumes and poorly design pedestrian crossings can create dangerous conditions for those on foot. Wide streets and long traffic signals make pedestrian crossing inconvenient and uncomfortable. A priority for through traffic often leads to high vehicle speeds. Free right turns, in particular, encourage vehicles to drive through without stopping and can create a serious safety hazard for pedestrians.

Increasing the intensity of development at activity nodes can also increase vehicle traffic in neighboring residential areas. This becomes particularly problematic when congestion causes cars to look for short cuts by cutting through residential neighborhoods, sometimes at high speeds.

#### **Street Capacity**

Cities should carefully weight decisions to increase road capacity. In any city, streets should be considered holistically as part of an integrated urban system. There are limits to what capacity expansion can achieve – experience has shown that capacity expansion often leads to greater demand without reducing long-term congestion. In addition, there are other consequences. Adding multiple turning pockets to an intersection, for example, can dramatically increase the distance that a pedestrian must

walk to cross.

While it is recognized that some South Bay arterials carry very high traffic volumes and are necessary for regional mobility, a certain level of congestion is appropriate and expected for economically healthy commercial areas. Southern California's most successful commercial zones often experience serious congestion problems, but rarely does that deter patrons from these areas. Once streets are widened, it is nearly impossible to narrow them again. At some point, they become the exclusive domain of the automobile and livable communities cannot be achieved.

West Hollywood's ongoing reconstruction of Santa Monica Boulevard provides a good example of improving the pedestrian and transit environment without significant capacity expansion. The route currently carries over 50,000 vehicles per day and is the major thoroughfare connecting Santa Monica, Westwood, Beverly Hills and Hollywood. The city recognized that the value of the street comes from its function as a public venue for walking, shopping, and interacting – not from carrying vehicles through the community. Despite significant congestion, the reconstructed street will provide little increase in road capacity. Instead, sidewalks are being widened, bicycle lanes added, and transit access improved by the creating of bus stop plazas at major intersections.

### Traffic Calming

Traffic calming refers to a variety of physical alterations to a street that aim to reduce vehicle speeds, increase safety and improve the environment for pedestrians and bicyclists. In the South Bay, the focusing of higher intensity development at activity nodes may lead to more vehicle traffic on surrounding residential streets. Traffic calming provides a good way to mitigate the impacts of this traffic. Some forms of traffic calming can also be used on commercial streets as well, particularly in pedestrian-oriented sections of the street.

**Speed Humps:** Speed humps are used in many California cities for calming traffic on residential streets. They are typically 12 feet wide and 3 to 4 inches high. A speed *hump* must be distinguished from the speed *bump*, which is a much narrower, more abrupt device often found in private parking lots. Speed humps are very effective at reducing mid-block traffic speeds, particularly the highest speeds that are most troubling to residents, are relatively inexpensive to install, and do not hinder street maintenance operations. Speed humps should be considered on local residential streets adjacent to commercial activity nodes. They can discourage cut-through traffic and slow the traffic that does venture off the main streets. Speed humps are generally not appropriate for higher volume, commercial streets.

**Speed Tables:** A variation of the speed hump is the speed table, a wider device with a flat top. Some cities have used speed tables instead of

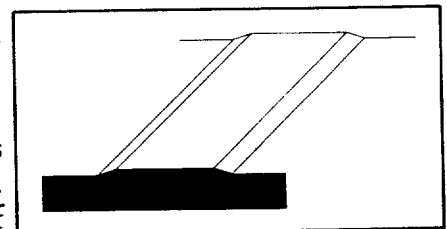


Figure 2.9

speed humps due to concerns over the slowing of emergency response vehicles. Speed tables have also been used on lower volume commercial streets as a mid-block pedestrian crossing (Figure 2.9).

**Bulb-Outs or Curb Extensions:** Bulb-outs are intersection curb extensions that increase pedestrian safety and convenience by shortening the crossing distance (Figure 2.10). Bulb-outs are typically installed in space previously occupied by on-street parking or a right-turn pocket. They are often used in the pedestrian-oriented zones of busy arterial streets. Bulb-outs can also serve as enhanced bus stops.

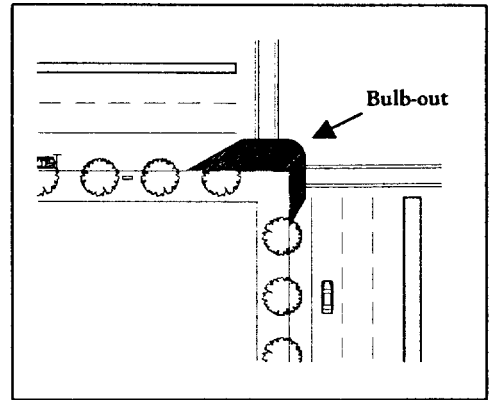


Figure 2.10

**Chokers or Pinch Points:** Chokers are extensions of the curb at mid-block that act to reduce the street width at one point. Street width may be reduced to allow two narrow traffic lanes, or two lanes can be narrowed to one. Chokers have been used on residential streets purely to slow speeding traffic. The amount of speed reduction depends on the degree that vehicles are laterally deflected. Chokers have also been used on busier commercial streets as a way to improve a mid-block pedestrian crossing.

West Hollywood is constructing chokers as part of the Santa Monica Boulevard reconstruction project. The chokers are being added to perpendicular residential streets near the point where these streets meet Santa Monica Boulevard. They are intended to calm traffic as it leaves the busy commercial street and enters residential neighborhoods. The chokers can be landscaped with trees and small gardens.

**Traffic Circles:** Traffic circles are landscaped islands in the center of intersections that force vehicles to slow down and turn right around them in order to proceed. Traffic circles reduce vehicle speeds at intersections and may reduce speeds mid-block if the block is short. When placed between long blocks, traffic circles will do little to reduce mid-block speeds. Landscaped traffic circles can beautify the street and have become small community gardens in some cities. They are used extensively in residential neighborhoods in Seattle and Portland.

**Diverters:** Some cities have installed full or partial barriers to limit traffic movement. A full diverter will block all traffic, while a partial diverter blocks traffic in one direction only. Diverters are typically used to prevent vehicles from using local residential streets as a short-cut or to by-pass a congested arterial street. They may be appropriate near a high intensity activity node or a busy commercial intersection. Diverters are not speed control devices and should not be used as such.

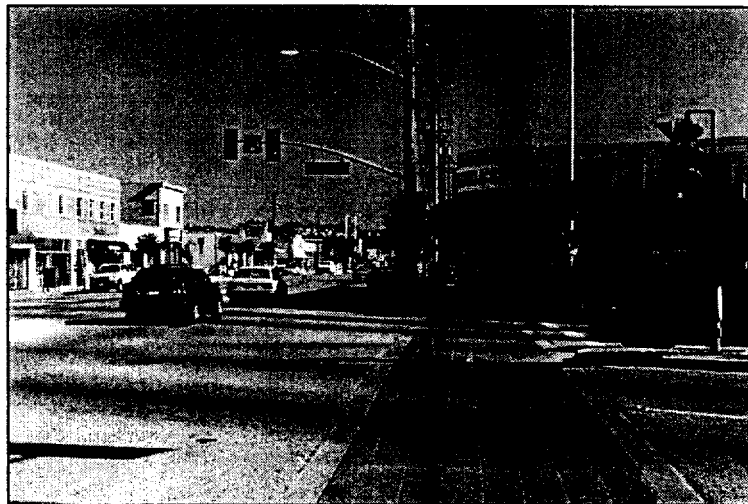
**Turning Restrictions:** Some cities allow a free right turn to increase traffic flow

through intersections. Right-turning vehicles can proceed through the intersection on a red light without stopping. This can create a dangerous situation for crossing pedestrians. In pedestrian-oriented zones, free right turns should be eliminated and all turning vehicles forced to stop at red lights. Right turn on red is still allowed.

### Crosswalks

Crosswalks are where pedestrian traffic intersects with vehicle traffic. As they can be the most dangerous segment of a pedestrian trip, they deserve special attention. In many places in the South Bay, arterial street crosswalks are long and marked only with fading zebra stripes. At some places, crossing is prohibited on one side of the intersection, forcing pedestrians to cross three times just to get to the other side of the street. A number of design measures can make crosswalks safer.

At a minimum, there should be standard crosswalks at least 8 feet wide at all four intersection crossing points. Crosswalks should be clearly marked, with striping at a minimum and preferably with textured or patterned paving. Enhanced markings are more visually interesting than typical striping, and also provide a clearer visual sign for motorists. In Lomita, the crosswalks at the intersection of Lomita Boulevard and Narbonne are paved with red cobblestones.



Crosswalk with textured paving, Lomita

Traffic calming can also be a useful strategy for improving crosswalks, as discussed above. This includes bulb-outs and chokers. A number of cities have used bulb-outs as a place for landscaping and other pedestrian amenities.

Another option for busy pedestrian zones is the all-cross intersection. Signal timing is adjusted so that one phase stops all vehicle movement and allows pedestrians to cross in all directions, including diagonally. Striping patterns should show diagonal crossing, and clear signage should be provided. Old Town Pasadena uses all-cross intersections on Colorado Boulevard, as does Beverly Hills.

Installing a mid-block pedestrian crossing should be considered for long blocks with relatively high pedestrian activity. Long commercial blocks impede pedestrian access and can lead to dangerous attempts at crossing (Figure 2.11). Providing a mid-block crossing helps to break up larger blocks and links land uses on opposite sides of the street. Depending on the level of traffic, it may be necessary to provide pedestrian-actuated signals to ensure pedestrian safety. Some cities are now installing pedestrian-actuated warning lights that flash to warn approaching vehicles. Where traffic calming is needed, crosswalks or entire intersections can be raised “tables” in order to slow traffic down.

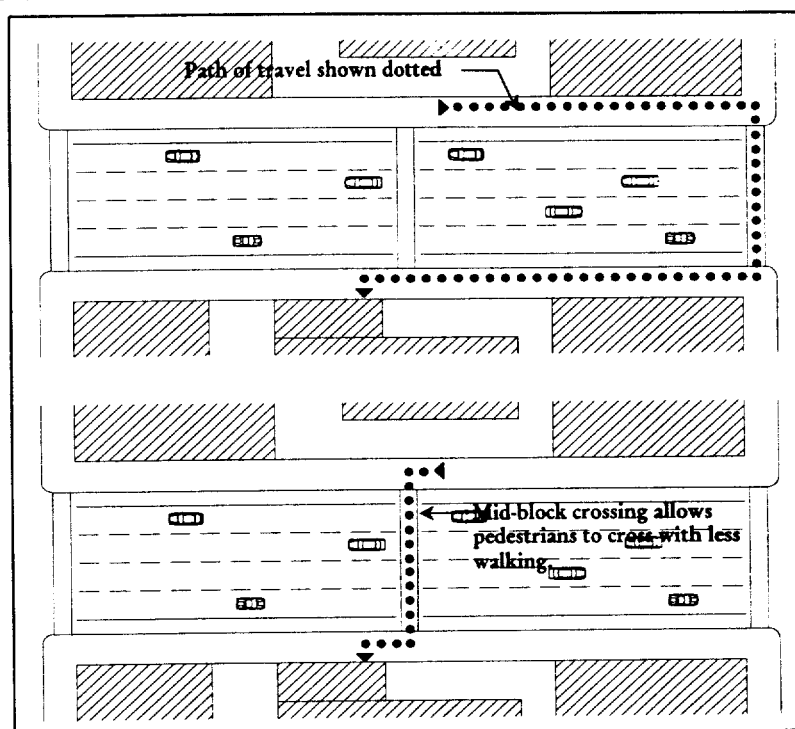


Figure 2.11

## Medians

Medians are sometimes used to separate fast moving traffic along arterial streets to increase safety. Too often, a median is simply a slab of cracked pavement with a few untended weeds and metal signs. These medians are unsightly, interfere with pedestrian traffic, and are strongly discouraged. Well designed medians can be a visually appealing streetscape element when designed properly.

Medians should be planted with shade trees, and can be raised above the street to create a high curb. High branching trees should be used to permit stores and signs to be visible from the opposite side of the street. If medians are wide enough (about 30 to 40 feet) they can provide paths for rollerblading, biking, and walking. Such medians also typically have grass, trees, and other plantings.

### 2.3.8 Alternative Transportation

Improvements to the transportation infrastructure go hand in hand with many of the land use and design elements of livable communities. Livable communities must offer viable choices to automobile travel, including transit, bicycling and walking. Unlike commercial development, most transportation improvements are publicly funded by the city or by state and regional agencies.

The high level of automobile use in Southern California has led many cities to ignore alternative transportation options. Streets are designed and modified with only automobile use in mind. This leads to a vicious cycle in which alternative transportation modes are discouraged, then their absence from the street is used to justify continued funding of automobile improvements.

The existing environment on many South Bay arterial streets is not supportive of alternative transportation modes. Bus stops are often unattractive, consisting of a forlorn bench or even just a simple sign. They are usually exposed to the elements and located far from building entrances. There are few amenities for waiting riders such as benches, shelters or maps.

Bike lanes are disjointed or non-existent. Bicycling alternatives on busy arterial streets are not provided or not well identified. For those that do venture out on a bicycle, bicycle parking is difficult to find. Bike racks, when they do exist, often consist of outdated racks that only allow the locking of one wheel.

#### Bus/Rail Transit

In order to make transit use a viable alternative, bus stops must become attractive and convenient. One way is to incorporate bus stop improvements into a more comprehensive sidewalk and streetscape enhancement program.

West Hollywood is creating "bus stop gardens" as part of the reconstruction of Santa Monica Boulevard. Curb extensions will allow passengers to access buses directly from the curb without the need for the bus to pull over. Passengers benefit from easier bus access, while faster boarding and alighting times may even increase traffic flow. These bus stops will be enhanced with "bus gardens" planted in the plaza created by the widened sidewalk and curb extension. Shelters, benches, kiosks, schedules and maps will also be added.

#### Bicycles

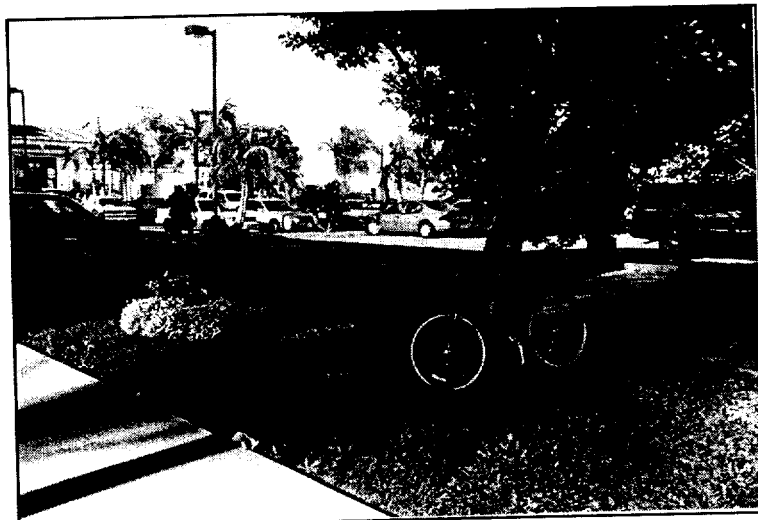
The climate and topography of the South Bay make the region ideally suited for bicycling. Household surveys often show that people would prefer to bicycle more but feel that it is unsafe and inconvenient. One indicator is that off-road bike paths are heavily used by recreational cyclists. The key to fostering greater bicycle use within

built-out cities is to create a system of routes that is both safe and direct. Safe routes should have low traffic volumes, be free of hazards, and provide cyclists with ample room to operate. Direct routes connect origins (usually residential areas) with destinations (employment areas, parks, shopping, etc.) in routes as direct as for driving.

All cities should develop a bicycle plan that identifies a network of bike routes, if for no other reason than an adopted bicycle plan is required to apply for certain state funds (see Chapter 4). Bike routes are generally classified as Class I (off-street bike paths), Class II (on-street dedicated bike lanes) or Class III (on-street bike routes). Ideally, the bicycle network should run parallel to major automobile thoroughfares, one or two streets over. Where bike routes cross major arterials, signals or stop signs are needed to stop traffic. Bicycle-actuated signals should be used in addition to pedestrian actuators. Bike lanes should be at least 3'-8" wide, and preferably 5'-0" wide. A bicycle route system needs good signage as well.

Bicycle parking should be required in all new development, whether commercial or multi-family. One way to ensure adequate bicycle parking is codify a ratio of bicycle spaces to vehicle spaces. Some cities require one bicycle parking space per 10 vehicle spaces, though this ratio should vary depending on the land use. Bicycle racks in the "wave" or "ribbon" style are preferred, as they accommodate many styles of bikes and allow locking of both the frame and wheel. Outdated bike racks that only allow locking of one wheel should never be used.

Bike parking should be located as close to building entrances as possible, and always in a visible location to prevent theft. If bicycle parking cannot be located on the sidewalk or plaza in front of a building, then the closest vehicle parking space should be used for bicycles. A four-bike ribbon rack costs roughly \$400 to purchase and install, compared to \$10,000 per automobile space.



Inadequate bicycle parking, Carson Street

## STRATEGIES FOR ARTERIAL COMMERCIAL STRIPS

A variety of other workplace amenities can make bicycle travel more attractive, such as shower facilities. Many cities require employers over a certain size to provide on-site showers. If not required, showers can be encouraged through various incentive mechanisms.